

## AMENDMENTS

### In the Claims

Claim 15 was previously canceled.

Please cancel claims 18-20, 24, 44, 56-60, 62-65, 67, and 69 without prejudice.

Please amend claims 1, 21, 26, 42-43, 45, 49, and 61 as shown herein.

Claims 1-14, 16-17, 21-23, 25-43, 45-55, 61, 66, and 68 are pending and listed following:

1. **(currently amended)** A method, comprising:
  - receiving audio content from one or more sources;
  - providing an audio content component for each source of audio content, each audio content component generating event instructions from the received audio content;
  - processing the event instructions to produce audio instructions;
  - providing audio rendition managers that each correspond to an audio rendition, an audio rendition manager including a synthesizer component, audio buffers, and logical buses that each correspond to one of the audio buffers; and
  - routing the audio instructions to the audio rendition managers that process the audio instructions to render the corresponding audio renditions;
  - processing the audio instructions with the synthesizer component to generate multiple streams of audio wave data;

1        assigning each of the multiple streams of audio wave data to one or more of  
2        the logical buses where a logical bus receives one or more of the streams of audio  
3        wave data from the synthesizer component; and

4        routing audio wave data streams assigned to a particular logical bus to the  
5        audio buffer corresponding to said particular logical bus.

6  
7        **2. (original)**    A method as recited in claim 1, wherein each audio  
8        content component is a component object having an interface that is callable by a  
9        software component, the software component directing said generating the event  
10       instructions.

11  
12       **3. (previously presented)**    A method as recited in claim 1, wherein  
13       each audio rendition manager is a component object having an interface that is  
14       callable by a software component, the software component performing said  
15       routing the audio instructions to the audio rendition managers.

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17       **4. (previously presented)**    A method as recited in claim 1, further  
18       comprising providing a software component, wherein each audio content  
19       component is a component object having an interface that is callable by the  
20       software component, the software component directing said generating the event  
21       instructions, and wherein each audio rendition manager is a component object  
22       having an interface that is callable by the software component, the software  
23       component performing said routing the audio instructions to the audio rendition  
24       managers.  
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1           **5. (previously presented)** A method as recited in claim 1, further  
2 comprising providing a performance manager that performs said providing an  
3 audio content component for each source of audio content, and performs said  
4 providing the audio rendition managers that each correspond to an audio rendition.

5  
6           **6. (previously presented)** A method as recited in claim 1, the  
7 method further comprising providing a performance manager as a component  
8 object that performs said providing an audio content component for each source of  
9 audio content, and performs said providing the audio rendition managers.

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11           **7. (previously presented)** A method as recited in claim 1, further  
12 comprising providing a performance manager as a component object, wherein  
13 each audio content component is a component object having an interface that is  
14 callable by the performance manager, the performance manager directing said  
15 generating the event instructions, and wherein each audio rendition manager is a  
16 component object having an interface that is callable by the performance manager,  
17 the performance manager performing said routing the audio instructions to the  
18 audio rendition managers.

19  
20           **8. (original)** A method as recited in claim 1, further comprising  
21 providing a performance manager that performs said receiving the audio content,  
22 providing an audio content component for each source of audio content,  
23 processing the event instructions, and routing the audio instructions.

1           **9. (previously presented)** A method as recited in claim 1, further  
2 comprising providing a performance manager that performs said receiving the  
3 audio content, providing an audio content component for each source of audio  
4 content, processing the event instructions, providing the audio rendition managers,  
5 and routing the audio instructions.

6  
7           **10. (original)** A method as recited in claim 1, wherein the audio  
8 content includes digital audio samples.

9  
10           **11. (original)** A method as recited in claim 1, wherein the audio  
11 content includes MIDI data.

12  
13           **12. (original)** A method as recited in claim 1, wherein each audio  
14 content component has one or more event instruction components that perform  
15 said generating the event instructions.

16  
17           **13. (original)** A method as recited in claim 1, wherein each audio  
18 content component has one or more event instruction components that perform  
19 said generating the event instructions, each event instruction component  
20 corresponding to part of the received audio content.

1           **14. (previously presented)**   A method as recited in claim 1, further  
2 comprising each audio content component generating event instructions and  
3 routing the event instructions to the audio rendition managers before said  
4 processing the event instructions.

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6           **15. (canceled)**

7  
8           **16. (previously presented)**   A method as recited in claim 1, wherein  
9 the audio rendition managers receive audio instructions originating as event  
10 instructions from one or more of the audio content components.

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12           **17. (original)**   A method as recited in claim 1, wherein one audio  
13 rendition manager receives audio instructions originating as event instructions  
14 from one or more of the audio content components.

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16           **18-20. (canceled)**

1           **21. (currently amended)**       A method as recited in claim 1, wherein  
2 ~~said providing an audio rendition manager comprises: providing a the synthesizer~~  
3 ~~component having includes multiple channel groups, each channel group having a~~  
4 ~~plurality of synthesizer channels to receive the audio instructions[[]], and wherein~~  
5 ~~the audio rendition manager includes providing a mapping component having~~  
6 ~~mapping channels corresponding to the plurality of synthesizer channels;~~  
7       ~~providing audio wave data consumers;~~  
8       ~~defining logical buses that each correspond to one of the audio wave data~~  
9 ~~consumers;~~  
10       the method further comprising:  
11           assigning the mapping channels to receive the audio instructions;  
12       and  
13           routing the audio instructions to a particular synthesizer channel in  
14 accordance with the mapping channel assignments;  
15       ~~processing the audio instructions with the synthesizer component to~~  
16 ~~generate multiple streams of audio wave data;~~  
17       ~~assigning each of the multiple streams of audio wave data to one or~~  
18 ~~more of the logical buses; and~~  
19       ~~routing audio wave data streams assigned to a particular logical bus~~  
20 ~~to the audio wave data consumer corresponding to said particular logical~~  
21 ~~bus.~~

1           **22. (original)** One or more computer-readable media comprising  
2 computer-executable instructions that, when executed, direct a computing system  
3 to perform the method of claim 1.

4  
5           **23. (original)** One or more computer-readable media comprising  
6 computer-executable instructions that, when executed, direct a computing system  
7 to perform the method of claim 7.

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9           **24. (canceled)**

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11           **25. (original)** One or more computer-readable media comprising  
12 computer-executable instructions that, when executed, direct a computing system  
13 to perform the method of claim 21.  
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1       **26. (currently amended)**       A method, comprising:  
2       providing a performance manager that performs acts comprising:  
3       receiving audio content from one or more sources;  
4       providing an audio content component for each source of audio content,  
5       each audio content component generating event instructions from the received  
6       audio content;  
7       processing the event instructions to produce audio instructions;  
8       providing audio rendition managers that each correspond to an audio  
9       rendition, each audio rendition manager including ~~performing acts comprising:~~  
10      ~~providing~~ a synthesizer component that receives the audio instructions and  
11      generates audio wave data, ~~data;~~ ~~providing~~ one or more audio wave ~~data~~  
12      ~~consumers~~ buffers that process the audio wave data[[]], and logical buses that  
13      each correspond to one of the audio buffers, each audio rendition manager:  
14      assigning the audio wave data to one or more of the logical buses that each  
15      receive one or more streams of audio wave data from the synthesizer component;  
16      and  
17      routing the audio wave data assigned to a particular logical bus to the audio  
18      buffer corresponding to said particular logical bus ~~routing the audio wave data to~~  
19      render the corresponding audio renditions.

20  
21       **27. (original)**       A method as recited in claim 26, wherein the  
22       performance manager is a component object having an interface that is callable by  
23       a software component.  
24  
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1           **28. (original)** A method as recited in claim 26, wherein the  
2 performance manager is a component object, and wherein each audio content  
3 component is a component object having an interface that is callable by the  
4 performance manager, the performance manager directing said generating the  
5 event instructions.

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7           **29. (original)** A method as recited in claim 26, wherein each audio  
8 rendition manager is a component object having an interface that is callable by a  
9 software component.

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11           **30. (original)** A method as recited in claim 26, wherein the  
12 performance manager is a component object, and wherein each audio rendition  
13 manager is a programming object having an interface that is callable by the  
14 performance manager.

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16           **31. (previously presented)** A method as recited in claim 26, wherein  
17 the performance manager is a component object that performs said providing the  
18 audio rendition managers, and wherein each audio rendition manager is a  
19 component object having an interface that is callable by the performance manager.

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21           **32. (original)** A method as recited in claim 26, wherein the audio  
22 content includes digital audio samples.  
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1           **33. (original)**   A method as recited in claim 26, wherein the audio  
2 content includes MIDI data.

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4           **34. (original)**   A method as recited in claim 26, wherein each audio  
5 content component has one or more event instruction components that perform  
6 said generating the event instructions.

7  
8           **35. (original)**   A method as recited in claim 26, wherein each audio  
9 content component is a component object having an interface that is callable by  
10 the performance manager, and wherein each audio content component has one or  
11 more event instruction components that are component objects having an interface  
12 that is callable by the audio content component, the one or more event instruction  
13 components performing said generating the event instructions.

14  
15           **36. (previously presented)**   A method as recited in claim 26, further  
16 comprising each audio content component generating event instructions, and  
17 routing the event instructions to the audio rendition managers before said  
18 processing the event instructions.

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20           **37. (previously presented)**   A method as recited in claim 26, further  
21 comprising a particular audio content component generating event instructions,  
22 said processing the event instructions to produce audio instructions, and routing  
23 the audio instructions resulting from the particular audio content component to the  
24 audio rendition managers.  
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1  
2       **38. (previously presented)**   A method as recited in claim 26, wherein  
3 the audio rendition managers receive audio instructions originating as event  
4 instructions from one or more of the audio content components.

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6       **39. (original)**   A method as recited in claim 26, wherein one audio  
7 rendition manager receives audio instructions originating as event instructions  
8 from one or more of the audio content components.

9  
10       **40. (original)**   A method as recited in claim 26, wherein the  
11 synthesizer component is a component object having an interface that is callable  
12 by a software component.

13  
14       **41. (original)**   A method as recited in claim 26, wherein each audio  
15 rendition manager is a component object, and wherein the synthesizer component  
16 is a component object having an interface that is callable by the audio rendition  
17 manager providing the synthesizer component.

18  
19       **42. (currently amended)**   A method as recited in claim 26, wherein  
20 the one or more ~~audio wave data consumers~~ are audio buffers ~~provided as~~ are  
21 component objects, each audio buffer having an interface that is callable by a  
22 software component.

1           **43. (currently amended)**       A method as recited in claim 26, wherein  
2 each audio rendition manager is a component object, and wherein the one or more  
3 ~~audio wave data consumers are audio buffers provided as~~ are component objects,  
4 each audio buffer having an interface that is callable by the audio rendition  
5 manager providing the audio buffer.

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7           **44. (canceled)**

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9           **45. (currently amended)**       A method as recited in claim 26, wherein  
10 ~~said providing a~~ the synthesizer component ~~comprises providing the synthesizer~~  
11 ~~component with~~ includes multiple channel groups, each channel group having a  
12 plurality of synthesizer channels that receive the audio instructions, and wherein  
13 each audio rendition manager ~~performs acts further comprising: providing~~  
14 includes a mapping component having mapping channels corresponding to the  
15 plurality of synthesizer channels, each audio rendition manager;

16           assigning the mapping channels to receive the audio instructions; and

17           routing the audio instructions to the synthesizer channels in accordance  
18 with the mapping channel assignments;

19           ~~defining logical buses that each correspond to one of the audio wave data~~  
20 ~~consumers;~~

21           ~~assigning the audio wave data to one or more of the logical buses; and~~

22           ~~routing the audio wave data assigned to a particular logical bus to the audio~~  
23 ~~wave data consumer corresponding to said particular logical bus.~~

1           **46. (original)** One or more computer-readable media comprising  
2 computer-executable instructions that, when executed, direct a computing system  
3 to perform the method of claim 26.

4  
5           **47. (original)** One or more computer-readable media comprising  
6 computer-executable instructions that, when executed, direct a computing system  
7 to perform the method of claim 31.

8  
9           **48. (original)** One or more computer-readable media comprising  
10 computer-executable instructions that, when executed, direct a computing system  
11 to perform the method of claim 45.

1           **49. (currently amended)**       An audio generation system, comprising:  
2           a performance manager having an audio content component that generates  
3           event instructions from audio content received from one or more sources, the  
4           performance manager configured to process the event instructions to produce  
5           audio instructions; and

6           audio rendition managers that each correspond to an audio rendition, an  
7           audio rendition manager configured to receive the audio instructions and process  
8           the audio instructions to render the corresponding audio rendition, the audio  
9           rendition manager having processing components including:

10           a synthesizer component having multiple channel groups, each channel  
11           group having a plurality of synthesizer channels configured to process the audio  
12           instructions to generate audio wave data;

13           a mapping component having mapping channels corresponding to the  
14           plurality of synthesizer channels, the mapping component configured to designate  
15           the synthesizer channels that receive the audio instructions via the respective  
16           mapping channels;

17           one or more audio buffers configured to process the audio wave data; and

18           a multi-bus component that defines logical buses corresponding  
19           respectively to the one or more audio buffers, the multi-bus component configured  
20           to receive the audio wave data at the defined logical buses, and route audio wave  
21           data that is received at a particular logical bus to the audio buffer corresponding to  
22           the particular logical bus.

1           **50. (original)**   An audio generation system as recited in claim 49,  
2 further comprising a second audio rendition manager that corresponds to a second  
3 audio rendition, the second audio rendition manager configured to receive the  
4 audio instructions and process the audio instructions to render the corresponding  
5 second audio rendition.

6  
7           **51. (original)**   An audio generation system as recited in claim 49,  
8 further comprising a second audio rendition manager that corresponds to a second  
9 audio rendition, the second audio rendition manager configured to receive the  
10 audio instructions and process the audio instructions to render the corresponding  
11 second audio rendition, wherein the audio rendition and the second audio rendition  
12 are rendered together.

13  
14           **52. (original)**   An audio generation system as recited in claim 49,  
15 wherein the performance manager is a component object having an interface that  
16 is callable by a software component.

17  
18           **53. (original)**   An audio generation system as recited in claim 49,  
19 wherein the audio rendition manager is a component object having an interface  
20 that is callable by a software component.

1           **54. (original)**   An audio generation system as recited in claim 49,  
2 wherein the performance manager is a component object, and wherein the audio  
3 content component is a component object having an interface that is callable by  
4 the performance manager.

5  
6           **55. (original)**   An audio generation system as recited in claim 49,  
7 wherein the performance manager is a component object, and wherein the audio  
8 rendition manager is a component object provided by the performance manager,  
9 the audio rendition manager having an interface that is callable by the performance  
10 manager.

11  
12           **56-60. (canceled)**



1           **61. (currently amended)**       An audio rendition manager, comprising:  
2           a synthesizer component having channel groups that each have a plurality  
3           of synthesizer channels configured to receive audio instructions and produce one  
4           or more streams of audio wave data from the received audio instructions;

5           an additional synthesizer component having additional channel groups that  
6           each have additional synthesizer channels configured to receive the audio  
7           instructions and produce the one or more streams of audio wave data from the  
8           received audio instructions;

9           a mapping component having mapping channels corresponding to the  
10          plurality of synthesizer channels and the additional synthesizer channels, the  
11          mapping component configured to receive the audio instructions from one or more  
12          sources, designate the synthesizer channels and the additional synthesizer channels  
13          that receive the audio instructions via the respective mapping channels, and route  
14          the audio instructions to the synthesizer channels and to the additional synthesizer  
15          channels; and

16          a plurality of audio buffers that receive one or more of the streams of audio  
17          wave data.

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19           **62-65. (canceled)**  
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1           **66. (original)**   An audio rendition manager as recited in claim 61,  
2 further comprising a multi-bus component that defines logical buses  
3 corresponding respectively to the plurality of audio buffers, the multi-bus  
4 component configured to receive the one or more streams of audio wave data at  
5 the defined logical buses and route one or more of the streams of audio wave data  
6 received at a particular logical bus to the audio buffer corresponding to the  
7 particular logical bus.

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9           **67. (canceled)**

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11           **68. (original)**   An audio rendition manager as recited in claim 61,  
12 further comprising a performance manager that receives audio content from one or  
13 more sources, the performance manager configured to instantiate an audio content  
14 component for each source of audio content, each audio content component  
15 generating event instructions from the received audio content, and wherein the  
16 performance manager is configured process the event instructions to produce the  
17 audio instructions.

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19           **69. (canceled)**